Snow and Ice Control Project

Full Mitigation Best Practice Story

District of Columbia, District of Columbia

Washington, DC - During the snow season of 1993-1994, severe cold conditions caused frequent sleet and freezing rain. Over 14,000 tons of sand and large amounts of salt were used on the roadways resulting in environmental damage. The damages included stopped up catch basins, fouled storm sewers, and broken degritting equipment. This caused littered streets and polluted air. Additionally, the level of grit discharged into the Potomac River violated EPA standards.

The Department of Public Works (DPW) in Washington, DC, is charged with control of ice and snow on the roadways of our Nation's Capital. Traditionally salt and sand were used to treat the roadways. The project called for the replacement of sand with liquid chemicals. To do this, 82 spray units were mounted on DPW box spreader trucks, 41 DPW tailgate spreader trucks were equipped with spray units, and five liquid spray tanks were mounted on DPW trucks. This equipment allowed the DPW to conduct the procedural innovation of anti-icing in addition to the standard de-icing.

The project addresses the recurrent and repetitive environmental problem by eliminating the extensive use of sand. This approach reduces risks to the public by more effectively removing snow and ice from the roadways. Most importantly, the dangers associated with slippery sand residue following the storm are also eliminated. A minimum of $3 million was saved in charges to remove sand pollution from roadways, the storm sewer system, and the water purification system.

Activity/Project Location

Geographical Area:	**Single County (County-wide)**
FEMA Region:	**Region III**
State:	**District of Columbia**
County:	**District of Columbia**

Key Activity/Project Information

Sector:	**Public**
Hazard Type:	**Winter Storm**
Activity/Project Type:	**Mitigation Planning/Disaster Resistant Universities**
Activity/Project Start Date:	**09/1996**
Activity/Project End Date:	**06/1999**
Funding Source:	**Hazard Mitigation Grant Program (HMGP); State sources**
Funding Recipient:	**State Government**
Funding Recipient Name:	**D.C. Office of Emergency Prepardness**

Activity/Project Economic Analysis

Cost:	**$322,500.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster?	**No**
Value Tested By Disaster?	**No**
Repetitive Loss Property?	**Unknown**

Reference URLs

Reference URL 1:	**http://www.fema.gov/**
Reference URL 2:	**http://dpw.dc.gov/**

Main Points

- Over 14,000 tons of sand and large amounts of salt were used on the roadways resulting in environmental damage.
- Replaced sand with liquid chemicals to prevent discharging excessive sand into drainage systems
- The project addresses the recurrent and repetitive environmental problem by eliminating the extensive use of sand.